

PROCEEDINGS
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A NEW SPECIES OF *ANOROPALLENE*
(PYCNOGONIDA) FROM THE HAWAIIAN ISLANDS

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A single pycnogonid specimen has been found among miscellaneous material collected by the U.S. Fisheries Steamer *Albatross* some 70 years ago. Since this unrecorded specimen appears undescribed and was collected from an area where few collections of any kind have been made since the time of the *Albatross*, I will describe the specimen in this note rather than wait in hope that more material will be found. The label accompanying the specimen is hardly legible and appears to read "Alb. 3464 May 22 44 fms." The latter data is incorrect for station 3464, but agrees exactly with station 3964. Assuming that a hastily written number nine can look like a number four, I treat the specimen as having come, in fact, from station 3964.

The manuscript has been reviewed by Dr. Joel W. Hedgpeth, and I gratefully acknowledge his comments. The specimen is deposited in the collections of the National Museum of Natural History, Smithsonian Institution.

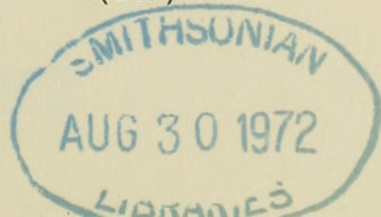
Callipallenidae

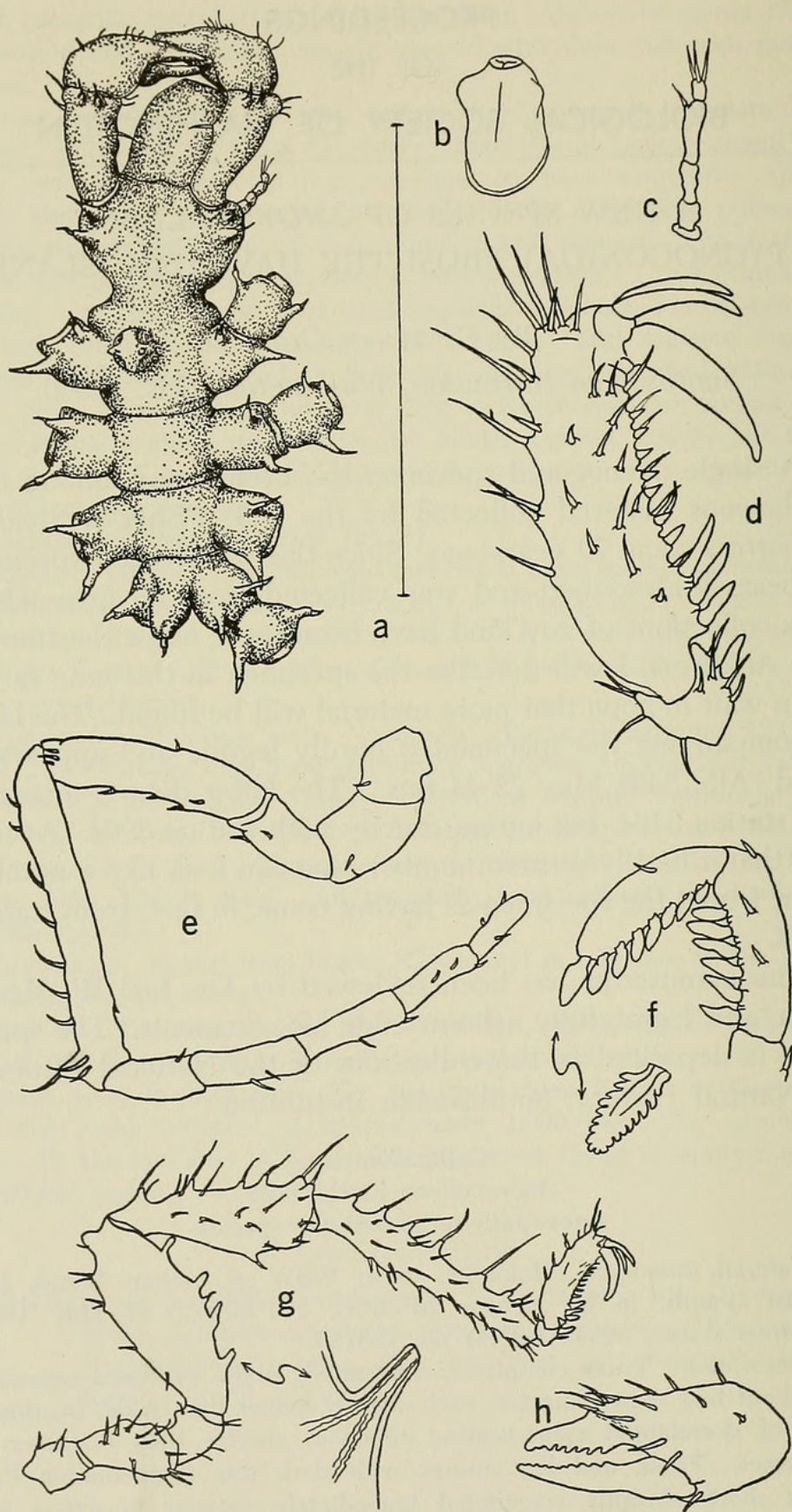
Anoropallene Stock, 1956

Anoropallene laysani new species

Material examined: Holotype, male; WSW of Laysan Island, Hawaiian Islands, in 80 meters; 25°50'N., 171°50'W.; 22 May 1902. *Albatross* station 3964. USNM no. 138139.

Description: Trunk completely segmented, lateral processes separated by about half their diameter, each slightly longer than wide, bearing a pair of dorsolateral spine-bearing tubercles shorter than diameter of processes. Trunk and leg sutures with dark thin pigmentation line. Neck short, abruptly constricted immediately anterior to oviger im-





plantation, bearing two pairs of spine-bearing tubercles on crop posterior to chelifore bases. Ocular tubercle between first lateral processes and posterior to oviger implantation, capped with two tiny lateral tubercles. Eyes slightly pigmented. Abdomen short, reaching tip of fourth lateral processes, unarmed, with bulge above basal constriction. Proboscis cylindrical with ventrolateral bulges near tip.

Chelifores two-jointed, scape with six to eight lateral and distal setae. Chelae large, well developed, with fringe of setae on back of palms. Fingers with fine blunt serrations.

Palpi four-jointed, slightly more than half probosis length. First and second joints subequal, third almost twice first two and bearing a distal seta, fourth a tiny oval, bearing three setae longer than joint.

Oviger 10-jointed, second, third, and sixth joints subequal, fourth over twice their length, fifth the longest, bearing broad conical tubercle distally, armed with single seta. Four terminal joints slightly longer than sixth, each armed with denticulate spines in the formula 8-7-6-8, without terminal claw. All joints with one to seven small setae, fifth with row of setae equal to or less than joint diameter.

Legs robust, very spinose, first coxae with two dorsolateral tubercles bearing setae, second coxae one and one-half times first, bearing 12-14 strong setae, third coxae with several ventral and distal setae. Femora swollen, with seven to nine dorsal setae and single median ventral seta and four ventral femoral cement glands. Cement glands thin, pointing slightly anteriorly, each less than half joint diameter. First tibiae slightly shorter than femora, second tibiae one and one-fourth times the first, each bearing dorsal row of spine-bearing tubercles, lateral rows of setae, and scattered ventral setae. Tarsus small, U-shaped, armed with single broad ventral spine and nine or 10 setae. Propodus without heel, armed with three broad proximal sole spines and seven or eight short thick distal sole spines, a fringe of lateral setae and 12 or more dorsal and distal setae. Terminal claw robust, less than half propodal length, auxiliaries slightly over half terminal claw length.

Measurements (in mm): Length of trunk (anterior end of crop to tip of abdomen) 2.08. Width of trunk (across second lateral processes), 1.12. Length of abdomen, 0.34. Length of proboscis (ventrally), 0.94. Third leg: Coxa 1, 0.38; Coxa 2, 0.60; Coxa 3, 0.40; Femur, 1.41; Tibia 1, 1.32; Tibia 2, 1.63; Tarsus, 0.13; Propodus, 0.69; Claw, 0.31.

Distribution: Type-locality: WSW of Laysan Island, Hawaiian Islands. Depth range: 80 meters.

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FIG. 1. *Anoropallene laysani* new species. a. Dorsal view of trunk (line = 2 mm); b. ventral proboscis; c. palp; d. tarsus and propodus; e. oviger (denticulate spines omitted); f. terminal oviger joints with enlargement of ultimate spine; g. third leg with enlargement of proximal femoral cement gland; h. chela.

Remarks: This specimen does not agree exactly with the diagnosis of *Anoropallene* given by Stock (1956, p. 46). The diagnosis of *Anoropallene* and its parent genus *Oropallene* places primary distinction on the presence or absence of a terminal oviger claw and propodal auxiliary claws. In *Anoropallene*, including *A. crenispina*, *heterodenta*, and *palpida*, there are no auxiliaries and no terminal oviger claw. In *Oropallene*, including *O. dimorpha*, *minor*, *ovigerosetosa*, and *polaris*, auxiliaries and the terminal oviger claw are present. This leaves *Anoropallene valida*, placed uneasily in the genus by Stock (1956), and the present species, both of which seem to be intermediate between the two genera in not having a terminal oviger claw, but having auxiliary claws. Based on the diagnoses, possibly a third genus is needed to include the two latter species even though it is agreed (Stock, loc cit; Clark, 1963, p. 21) that the presence or absence of a terminal oviger claw may have more taxonomic importance than the presence or absence of auxiliary claws. As with a number of other pycnogonid genera which are based on a single specimen or only a few individuals, it seems best to await more specimens of this *Oropallene*—*Anoropallene* complex before splitting the group further, if indeed it becomes necessary.

LITERATURE CITED

- CLARK, W. C. 1963. Australian Pycnogonida. *Rec. Austral. Mus.* 26 (1): 1-81, figs. 1-38.
- STOCK, J. H. 1956. Pantopoden aus dem Zoologischen Museum Hamburg. *Mitt. Hamburg Zool. Mus.* 54: 33-48, figs. 1-7.



Child, C. Allan. 1972. "A New Species Of Anoropallene Pycnogonida From The Hawaiian Islands." *Proceedings of the Biological Society of Washington* 85, 147–150.

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